

GRADE STABILIZATION STRUCTURE
(pipe drop with detention storage)

Job Class _____ Controlling Factor _____

Soils _____ Hydro. Gr. _____

Land Use _____ Trtmt. _____ Condition _____

DA _____ ac. W/S Slope _____ % Slope Factor _____

CN _____ Rainfall _____ in. _____ yr. & _____ in. _____ yr.

$Q_{ps} = \text{_____ in. } q_i = \text{_____ (} Q_{ps} \text{) } \times \text{_____ cfs/in.} = \text{_____ cfs}$

$V_r = [\text{_____ (in) } \times \text{_____ (DA) }] / 12 = \text{_____ AF}$

$V_s = (\text{_____ cf/ft } \times \text{_____ ft.}) / 43560 = \text{_____ AF}$

$V_s/V_r = \text{_____ (} V_s \text{) } / \text{_____ (} V_r \text{) } = \text{_____ } q_o/q_i = \text{_____}$

$Q_{pipe} = \text{_____ (} q_o/q_i \text{) } \times \text{_____ (} q_i \text{) } = \text{_____ cfs}$

Pipe Size = _____ in. (sm./corr.) barrel; _____ in. riser

Emb. SS = _____ : 1 TW = _____ ft.

$Q_{es} = \text{_____ in. } \times \text{_____ cfs/in.} = \text{_____ cfs}$

BW = _____ ft. C. Sect. = _____ ft. Stage = _____ ft.

S. Range = _____ to _____ F'Board = _____ ft.

El Riser _____ El Emer S/W _____ El Top of Dam _____

Settlement _____ % Pond Use _____

Drain _____ ft. of _____ in. _____ Pipe

Riser _____ ft. of _____ in. _____ Pipe

Quantity of Fill _____ CY

Vegetation _____

Design By _____ Checked By _____